

REMARKS

Claims 1, 3-6, 8-12, 14, and 16-22 are now pending in the application. Minor amendments have been made to the specification and claims to simply overcome the objections to the specification and rejections of the claims under 35 U.S.C. § 112. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

SPECIFICATION

The specification stands objected to under 35 U.S.C §132(a) as introducing new matter into the disclosure. Applicants have amended the specification to remove the objected to material. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 112

Claims 1, 3-6, 8-12, 14, and 16-22 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention. This rejection is respectfully traversed.

Applicants have removed the language indicated as unclear by the Examiner. Specifically, the term "independently" has been deleted from the independent claims. Therefore, reconsideration and withdrawal of the rejection to claims 1, 3-6, 8-12, 14, and 16-22 are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3-6, 8-12, 14, and 16-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Benz et al. (U.S. Pat. No. 5,645,950, hereinafter "Benz") in view of Resier et al. (U.S. Pat. No. 4,202,933, hereinafter "Resier"). This rejection is respectfully traversed.

At the outset, Applicants note that the combination of Benz and Reiser appears to use impermissible hindsight. "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of hindsight syndrome wherein that which only the inventor taught is used against the teacher." In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (citing W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)). The combination of Benz and Reiser does not appear to be motivated by anything other than a hindsight reconstruction of the claims of the present application.

Specifically, as admitted by the Examiner, "Benz et al. do not disclose a compressor that draws in a mixture of fresh gas and humidified exhaust gas from the cathode exhaust and compresses the mixture therein, a metering device to adjust the flow of cathode exhaust to the compressor, and a controller that controls the metering device." Rather, the Examiner cites Reiser as disclosing "a metering device (54, 27) to adjust a flow of cathode exhaust gas to the compressor, and a controller (50) that controls the metering device (54, 27)."

The system disclosed in Benz includes humidification of cathode gas supplied to a fuel cell through injection of water into the air supply line. However, as indicated

above, there is no teaching of cathode exhaust gas recycling to humidify the supply gas. The Examiner relies on Reiser for this teaching. Contrary to the humidification of cathode gas supplied to a fuel cell, Reiser teaches cathode exhaust gas being recycled through the fuel cell in order to reduce the power output of the fuel cell. Reiser specifically states "if the power level [of the fuel cell] must be reduced further a portion of the cathode exhaust should be recycled. Since the cathode exhaust is more dilute in oxygen than is air, recycling has the effect of reducing the average partial pressure of oxygen within each cell thereby causing a reduction in voltage." (col. 2, line 66 – col. 3, line 3). Accordingly, the teaching of Reiser is only relevant to a method of reducing the power output of the fuel cell and does not relate to membrane humidification. As such, there does not appear to be any proper motivation to combine the power reduction system of Reiser with the humidification system shown in Benz.

In order to find an invention obvious in light of a combination of references, there must be something present in the teachings of those references to suggest the claimed invention to one skilled in the art. W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1551, 220 USPQ 303, 311 (Fed. Cir. 1983)(citing In re Bergel, 292 F.2d 955, 956-57, 130 USPQ 206, 208 (CCPA 1961)). While Benz discloses a system for supplying humidified air to a fuel cell in order to maintain efficient operation, the contrary teaching of Reiser relates to a method of reducing the power output of a fuel cell. Accordingly, although Reiser appears to disclose the claimed features that are admittedly missing from Benz, there is no motivation for the proposed combination. In view of the clear lack of any motivation from the teachings of the references for their combination, Applicants respectfully submit that their combination is inappropriate and cannot provide

a proper basis for a rejection under §103(a). In view of the arguments indicated above, Applicants respectfully submit that claim 1, 8, 14, and 20 are in condition for allowance.

Applicants further note that the conclusory statement that “the Benz et al. combination would obviously provide the claimed compressor that draws in a mixture of humidified exhaust gas from the cathode exhaust and compresses the mixture therein and provide water injection into the mixture” is inappropriate. This statement is not motivated by the references either individually or taken together. As indicated by the Examiner, “Benz et al. do not disclose a compressor that draws in a mixture of fresh gas and humidified exhaust gas from the cathode exhaust and compresses the mixture therein, a metering device to adjust the flow of cathode exhaust to the compressor, and a controller that controls the metering device.” Reiser also fails to disclose the configuration of the claimed compressor. In fact, Reiser does not even mention a compressor, it merely discloses an air source 22. These conclusory statements by the Examiner are inappropriate without some evidentiary support.

In order for an Examiner to properly take official notice or to rely on common knowledge in making a rejection without documentary evidence, the facts relied upon must be “capable of instant and unquestionable demonstration as being well-known.” MPEP §2144.03(A). “It would not be appropriate for the Examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well-known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art.” MPEP §2144.03(A) (citing In re Alhert, 424

F.2d 1088). In clarifying what is capable of unquestionable demonstration, the MPEP notes that “[t]he facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice.” MPEP §2144.03(A). In the present application, the conclusory statement made by the Examiner regarding the obviousness of the claims clearly is not unquestionable, as it relates to the state of the art through the knowledge of one of ordinary skill assumed by the Examiner. As indicated in the MPEP, this is not an appropriate basis for the rejection maintained by the Examiner.

The MPEP specifically disallows reliance on conclusory statements. “The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.” MPEP §2144.03(A) (citing In re Lee, 277 F.3d 1338). “It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection is based. MPEP §2144.03(E) (citing In re Zurko, 258 F.3d 1379). As indicated above, the MPEP repeatedly and explicitly requires documentary evidence for rejections relying solely on common knowledge in the art.

Further, the Examiner cites Benz as disclosing injecting water into the gas within the compressor. However, this is not disclosed in Benz. Benz states “water may be injected either downstream or upstream of compressor 6.” (col. 3, lines 3-4). Since there is no motivation in Benz for injecting water into the gas within the compressor, it cannot be seen as teaching or suggesting this feature.

In view of the above remarks, Applicants respectfully submit that the rejections to the claims under 35 U.S.C. §103(a) are inappropriate and have been adequately

traversed. As such, Applicants submit that amended claims 1, 8, 14, and 20 are in condition for allowance. Further, Applicants submit that the Examiner must provide documentary evidence to support the rejections to the claims based on conclusory statements or common knowledge if they are to be maintained, as required by MPEP §2144.03(C) (citing 37 C.F.R. §1.104(c)(2)). If no documentary evidence is available, Applicants respectfully request reconsideration and withdrawal of these rejections.

Claims 3-6, 7-12, 16-19, and 21-22 depend from claims 1, 8, 14, and 20 and should be in condition for allowance for the reasons set forth above. Therefore, reconsideration and withdrawal of the rejection of claims 1, 3-6, 8-12, 14, and 16-20 are respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the

Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: May 24, 2006

By: Ryan W. Massey
Ryan W. Massey, Reg. No. 38,543

CORRESPONDENCE ADDRESS:
Charles Ellerbrock, Esq.
General Motors Corporation
Legal Staff - Mail Code 482-C23-B21
PO Box 300 - 300 Renaissance Center
Detroit, Michigan 48265-3000
Ph: 313-665-4709
Fax: 313-665-4976

RWM/JMP